

U.S. Serial No.: 10/652,314  
Response under 37 C.F.R. §1.116 dated April 11, 2005  
Response to the Office Action of December 10, 2004

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims**

Claim 1 (Currently Amended): A resist application method comprising the steps of:

thermal processing for evaporating water from ~~[[the]]~~ a surface of a substrate, said  
substrate containing amorphous silicon on the surface thereof;

making the surface of the substrate hydrophobic with a hydrophobic processing material;

and

applying a resist onto the substrate,

the step of thermal processing to the step of making the substrate surface hydrophobic being performed in a dehumidified atmosphere, and

the step of applying the resist being performed in an atmosphere having a higher humidity than the dehumidified atmosphere.

Claim 2 (Original): A resist application method according to claim 1, wherein the hydrophobic processing material is hexamethyldisilazane.

Claim 3 (Original): A resist application method according to claim 1, wherein a humidity of the dehumidified atmosphere is below 20% including 20%.

Claim 4 (Original): A resist application method according to claim 2, wherein a humidity of the dehumidified atmosphere is below 20% including 20%.

Claim 5 (Original): A resist application method according to claim 1, wherein the dehumidified atmosphere is dehumidified air, nitrogen gas, a rare gas or a mixed gas of them.

Claim 6 (Original): A resist application method according to claim 2, wherein the dehumidified atmosphere is dehumidified air, nitrogen gas, a rare gas or a mixed gas of them.

Claim 7 (Original): A resist application method according to claim 3, wherein the dehumidified atmosphere is dehumidified air, nitrogen gas, a rare gas or a mixed gas of them.

Claim 8 (Original): A resist application method according to claim 1, wherein in the step of thermal processing, a temperature of the substrate is above 100°C including 100°C.

Claim 9 (Original): A resist application method according to claim 2, wherein  
in the step of thermal processing, a temperature of the substrate is above 100°C including  
100°C.

Claim 10 (Original): A resist application method according to claim 3, wherein  
in the step of thermal processing, a temperature of the substrate is above 100°C including  
100°C.

Claim 11 (Original): A resist application method according to claim 5, wherein  
in the step of thermal processing, a temperature of the substrate is above 100°C including  
100°C.

Claim 12 (Original): A resist application method according to claim 1, wherein  
in the step of making the surface of a substrate hydrophobic, the substrate surface is made  
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

Claim 13 (Original): A resist application method according to claim 2, wherein  
in the step of making the surface of a substrate hydrophobic, the substrate surface is made  
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

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Claim 14 (Original): A resist application method according to claim 3, wherein  
in the step of making the surface of a substrate hydrophobic, the substrate surface is made  
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

Claim 15 (Original): A resist application method according to claim 5, wherein  
in the step of making the surface of a substrate hydrophobic, the substrate surface is made  
hydrophobic with a temperature of the substrate surface being above 100°C including 100°C.

Claims 16 – 17 (Canceled)

Claim 18 (Withdrawn): A resist application device comprising:  
a thermal processing unit for performing thermal processing to evaporate water from the  
surface of a substrate in a dehumidified atmosphere;  
a hydrophobic processing unit for making the substrate surface hydrophobic with a  
hydrophobic processing material, keeping the dehumidified atmosphere; and  
a resist application unit for applying a resist onto the substrate.

Claim 19 (Withdrawn): A resist application device according to claim 18, wherein  
the hydrophobic processing unit further comprises a heating means.

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Claim 20 (Currently Amended): A method for fabricating a semiconductor device comprising the steps of:

thermal processing for evaporating water from ~~[[the]]~~ a surface of a semiconductor substrate, said semiconductor substrate containing amorphous silicon on the surface thereof;

making the surface of the substrate hydrophobic with a hydrophobic processing material;  
and

applying a resist onto the semiconductor substrate,  
the step of thermal processing to the step of making the substrate surface hydrophobic being performed in a dehumidified atmosphere, and

the step of applying the resist being performed in an atmosphere having a higher humidity than the dehumidified atmosphere.